

Work Order ID 123001

Monday, March 23, 2015 11:09:27 AM

123001

Page 1

Item ID: 647.0116

Revision ID:

Item Name: Doubler

Start Date: 7/29/2014 Start Qty: 20.00

Required Date: 7/29/2014 Req'd Qty: 20.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: ML5 Date: 1503-23

Tooling:

Date:

QC: Date:

SPC (Y/N):

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.0100	A1								

110

0.00

110

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: A1

Prog Rev: A1

2-Deburr if necessary

2024.032

20 0 Jm15-3-24

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

20 0 Jm15-3-24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
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Page 2

Item ID: 647.0116

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Doubler

Stop

NS2

Start Date: 7/29/2014 Start Qty: 20.00

20

Cust Item ID:

Required Date: 7/29/2014 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

DAS

38

9-89

MAR 24 2015

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG : 27915

1- Black Anodize as per Dwg 647.0100

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

CL 15103/27 17

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.00

Packaging

17X SP 15-04-14.

DQA: _____ Date: _____



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Training									
Transport									
Unapproved									

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Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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Page 3

Item ID: 647.0116

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Doubler

Start Date: 7/29/2014 Start Qty: 20.00

20

Cust Item ID:

Required Date: 7/29/2014 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

DAS

38

9-89

APR 15 2015

190

Identify as per dwg & Stock Location: ST 105 0.00***190***

Packaging

Memo

0.00

Packaging

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

17x SPIS-415

200

QC21- Final Inspection - Work Order Release 0.00

200

QC

Memo

0.00

Quality Control

MCS 1504-16
MCS 15-04-15

DQA: _____ Date: _____



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Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Monday, March 23, 2015 11:09:30 AM

Page 1

Work Order ID: 123001

123001

Parent Item: 647.0116

647 0116

Parent Item Name: Doubler

Start Date: 7/29/2014

Required Date: 7/29/2014

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP REV:A 12.08.14 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M2024T3S.032

Purchased

No

110

sf

68.9060

0.0563

(2)

M2024T3S 032

**

Jm15-3-24

2024-T3 .032 sheet

Location

Loc Qty

Loc Code

MAT022

68.906

M130497

68.906

130497

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FAULT CATEGORY

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APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

03985

SHEET 1 OF 2

DWG NO. 647.0100

REV: A

PREPARED BY

J. BECKER

DATE: 7/15/13

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: SHEET METAL

APPROVED BY:

ENGR.

MFG

QC

EFF.

NEXT ORDER

TRANSACTION CODES (TC):

A-ADD
R-REVISE

C-CREATE
D-DELETE

REASON: REVISED NOTE 2. ADDED 647.0117

NOTES:

IS

1 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4.

2 FINISH: IAW MPP-172 ANODIZE IAW SECTION 2.1,
PRETREATMENT IAW SECTION 3.1
AND PRIMER IAW SECTION 4.1.

3. DEBURR AND BREAK ALL SHARP EDGES.

4. IDENTIFY IAW MPP-120.

5 MATERIAL: 304 SS IAW AMS 5643.

6 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N.

7 OTHER DIMENSIONS SAME AS 647.0112.

12300.1
ML5
15-03-23

SHEET 1, ZONE D1 IS:

C	647.0117			STRUT BRACKET	△	△
F/NTC	PART NUMBER			DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM				☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

DQA: _____ Date: _____



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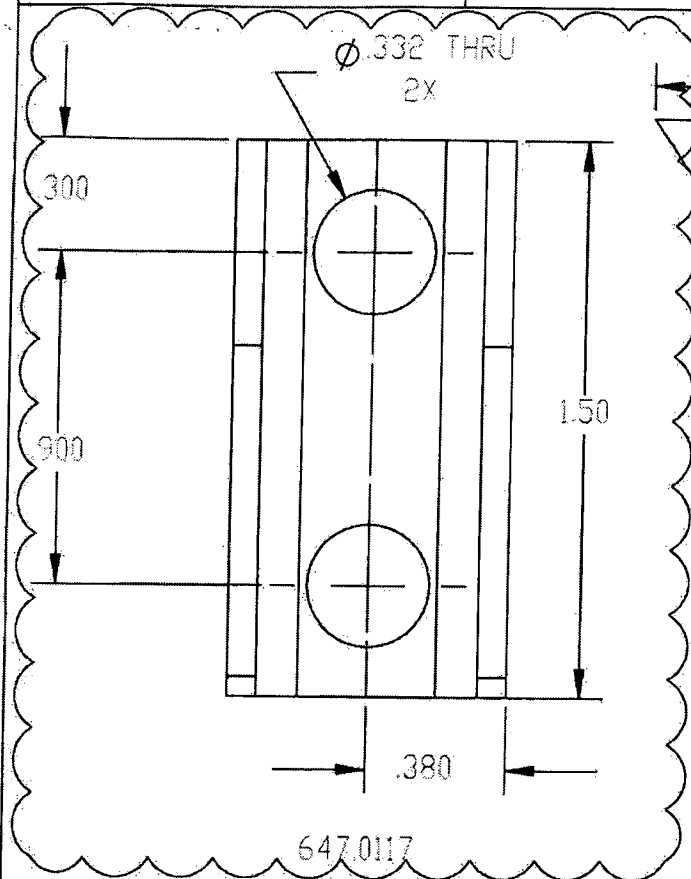
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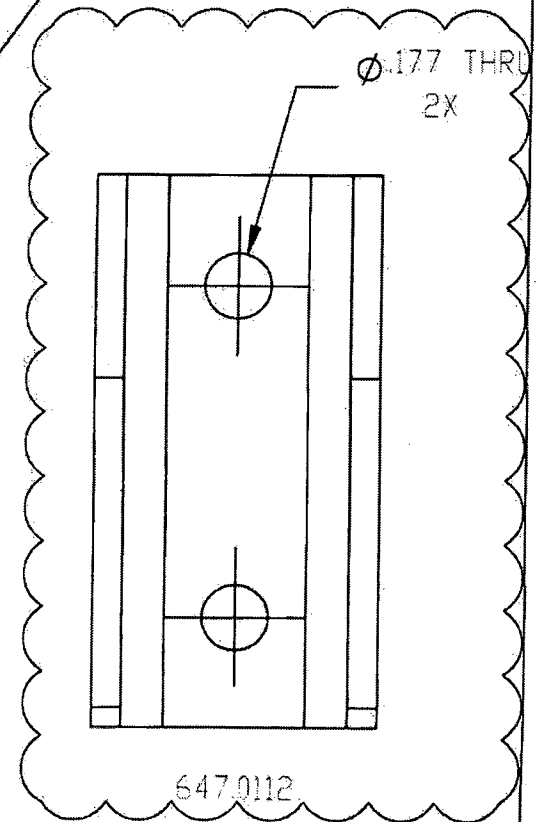
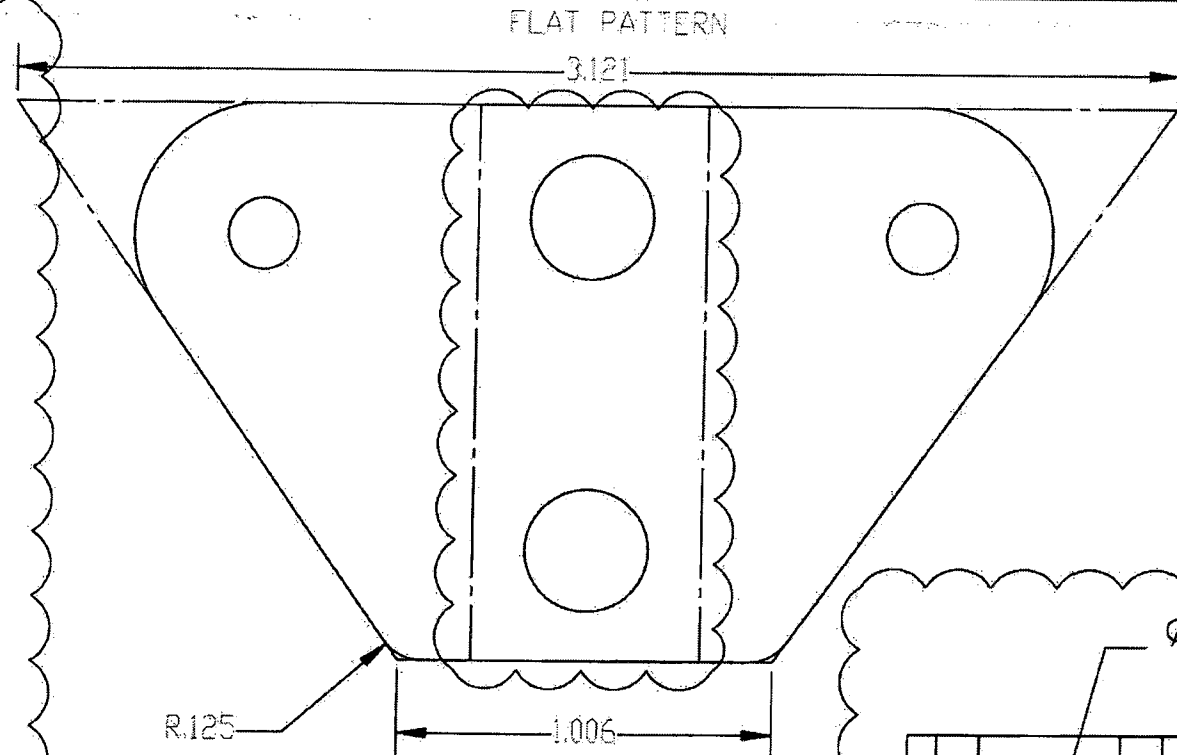
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FAULT CATEGORY

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647.0117



647.0112

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

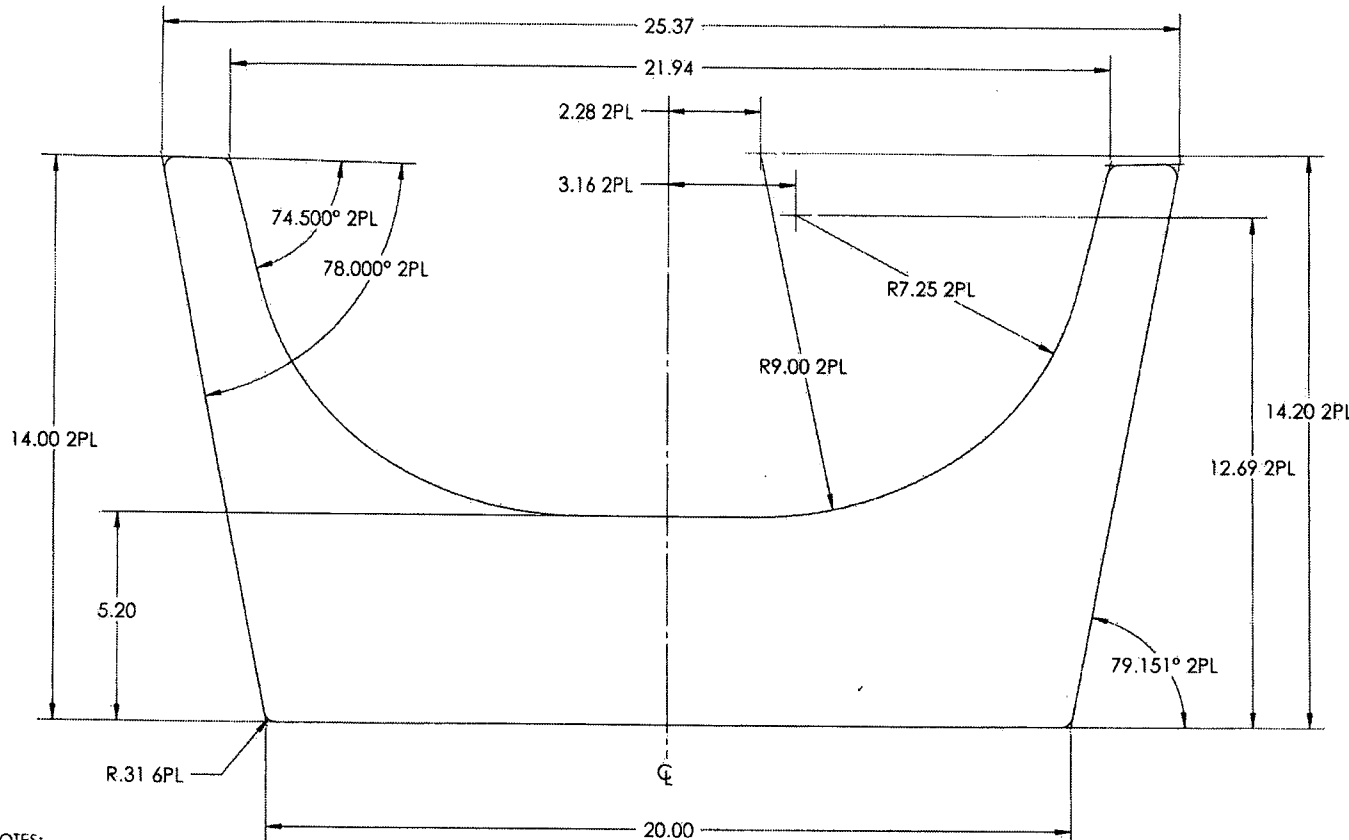
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

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REV.	DESCRIPTION	DATE	APPROVED
1	LAST PROTOTYPED REVISION: P02		N/C
2	INITIAL RELEASE	03/28/07	P. BRAVO
3	REINCORPORATED ECN 02777, 02784, 02807	04/26/11	P. BRAVO

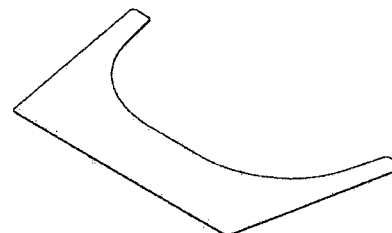


UNINCORPORATED ECN(S)

03985

NOTES:

- 1 MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4.
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; PRETREAT PR-148 ADHESION PROMOTER; PRIME IAW MIL-P-23377J TYPE I CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120.
- 5 MATERIAL: 304 SS IAW AMS 5643.
- 6 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N.



647.0110

		647.0116	DOUBLER	△	△
		647.0115	CLIP	△	△
		647.0114	CLIP	△	△
		647.0113	STRUT DOUBLER	△	△
		647.0112	STRUT BRACKET	△	△
		647.0111	PANEL	△	△
		647.0110	ROOF DOUBLER	△	△
	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY		PARTS LIST			
NEXT ASSY (S)		APICAL INDUSTRIES			
646.9500		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)/274-53			
		SHEETMETAL			
		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
		SHEET CODE	DWG. NO.	REV.	
		B	07M26	A	
		SCALE: NONE		SHEET 1 OF 6	

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760) 724-5300

SHEETMETAL

647.0100

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

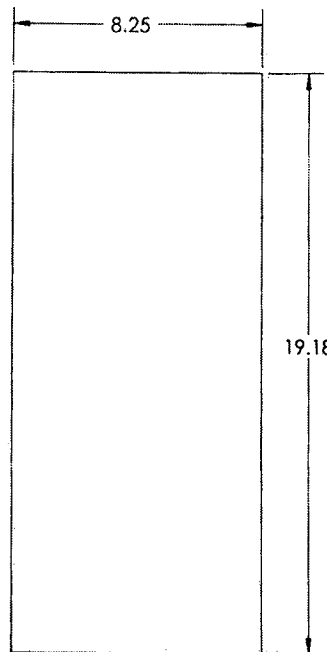
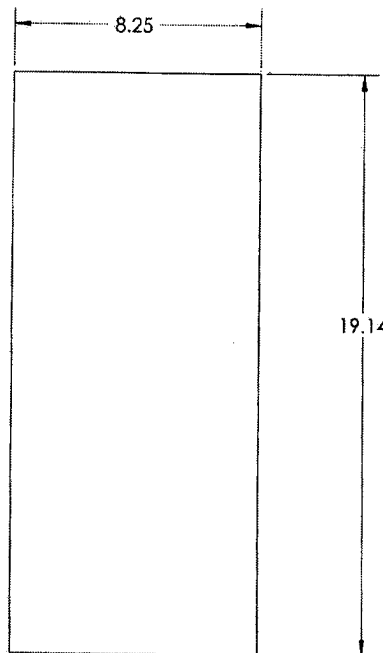
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Training									
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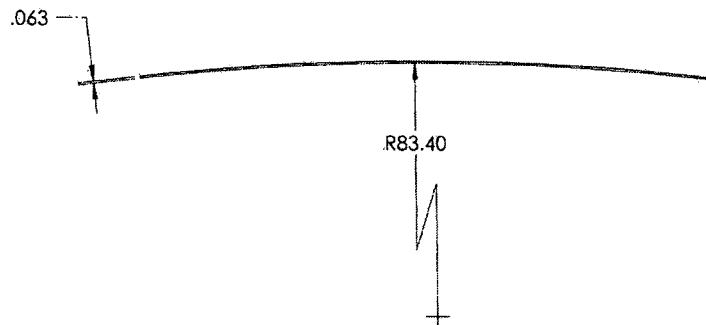
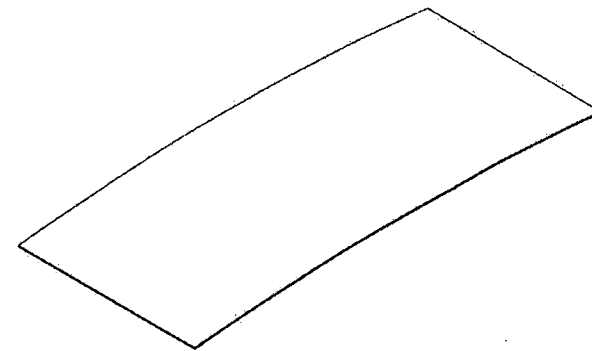
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

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FLAT PATTERN



ORIGINAL DATE 12-01-01 01:28:09		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWN BY R. ROSARIO	CHECKED P. BRAVO		
DRAWING APPROVAL P. BRAVO	CONTRACT NO.	SHEETMETAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .001 ANGLE ± .5°		REV. (CAGE CODE) DWS. HD. B 07M16 647.0100	REV. A
SCALE: NONE		SHEET 2 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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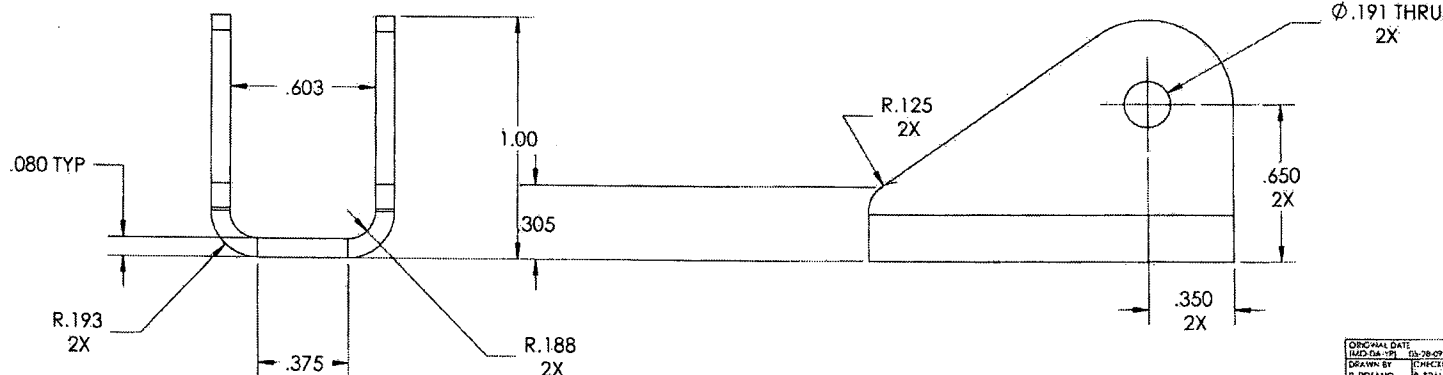
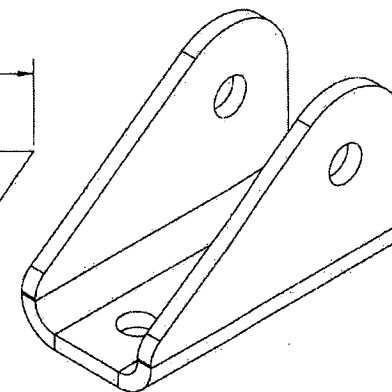
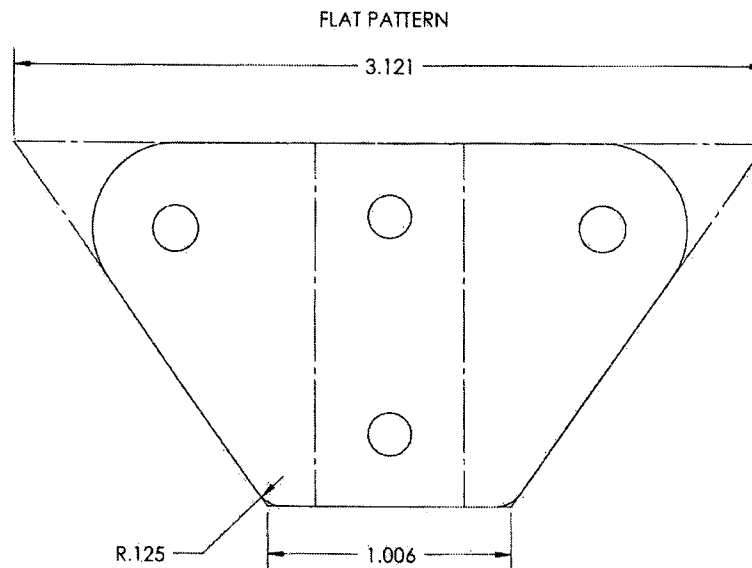
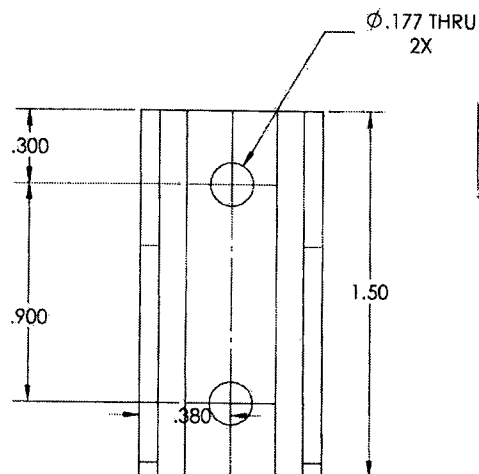
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

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Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE: (DD-MM-YY)	01-28-09														
DRAWN BY:	CHECKED:														
H. ROSANO	P. BRAVO														
DRAWING APPROVAL:															
P. BRAVO															
DATE:	01-28-09														
CONTRACT NO.															
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300															
SHEET METAL <table border="1"><thead><tr><th>UNIT: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°</th><th>SMT. I.D. CODE</th><th>DWG. NO.</th><th>REV.</th></tr></thead><tbody><tr><td></td><td>B 07M16</td><td>647.0100</td><td>A</td></tr><tr><td></td><td>SCALE: NONE</td><td></td><td>SHEET 3 OF 6</td></tr></tbody></table>				UNIT: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SMT. I.D. CODE	DWG. NO.	REV.		B 07M16	647.0100	A		SCALE: NONE		SHEET 3 OF 6
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	B 07M16	647.0100	A												
	SCALE: NONE		SHEET 3 OF 6												

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

SHEETMETAL

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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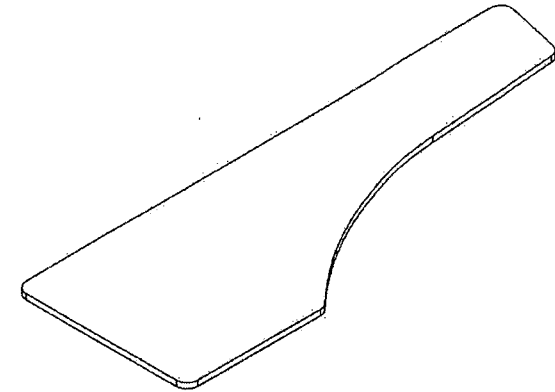
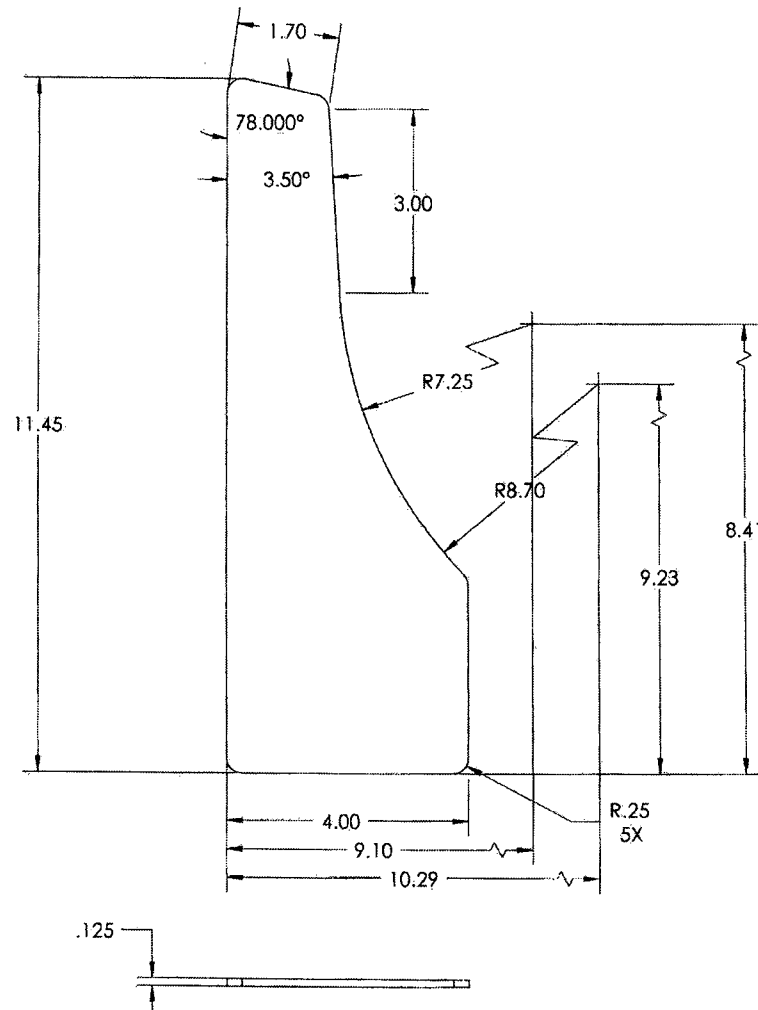
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
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Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.0113

ORIGINAL DATE INQ-DIA-181 05-28-09		APICAL INDUSTRIES	
DRAWN BY P. ROMANO P. BRAVO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 05-28-09 CONTRACTING		SHEETMETAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SIZE [CAGE CODE] QTY. 140 B 07M16 647.010J	REV A
SCALE NONE		SHEET 4 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

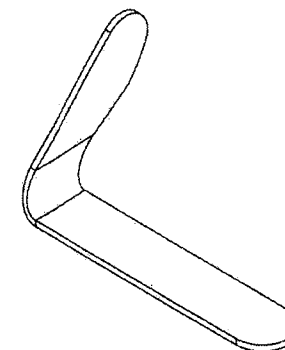
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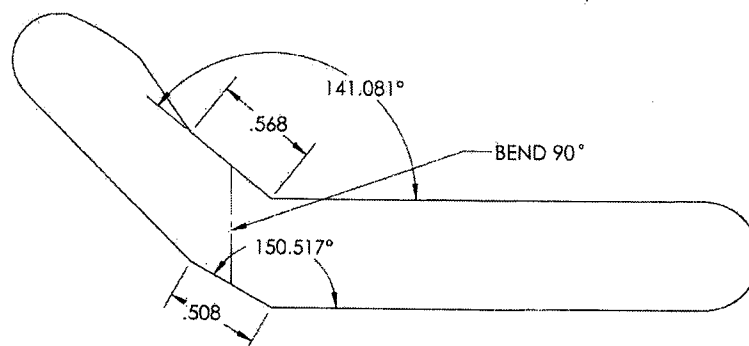
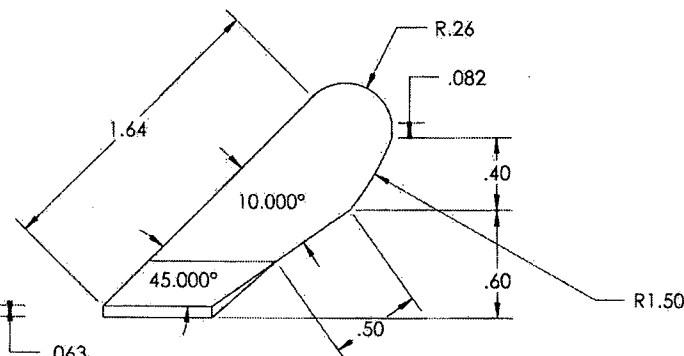
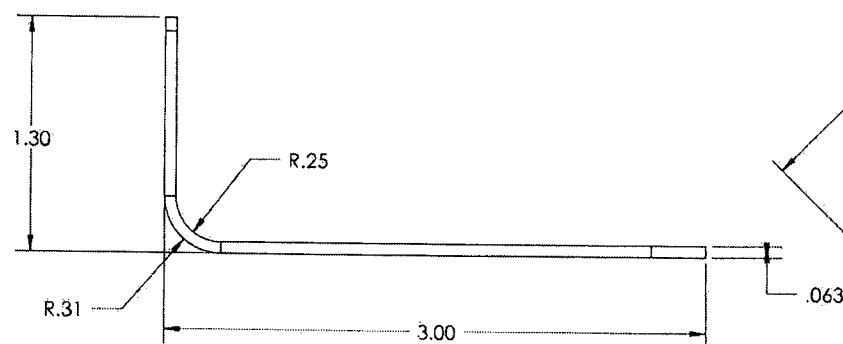
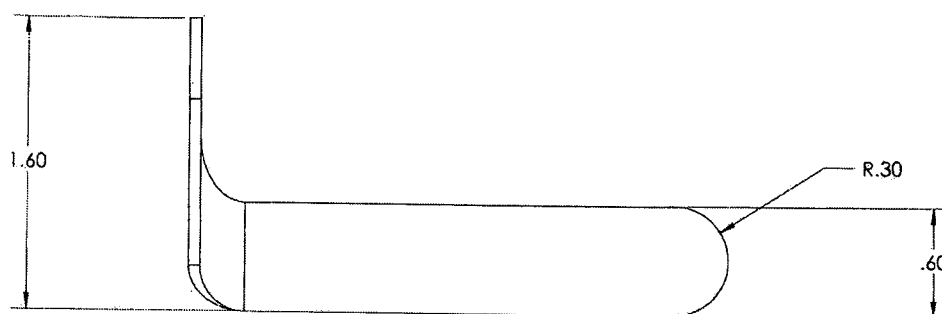
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.0114 SHOWN
647.0115 OPPOSITE



FLAT PATTERN

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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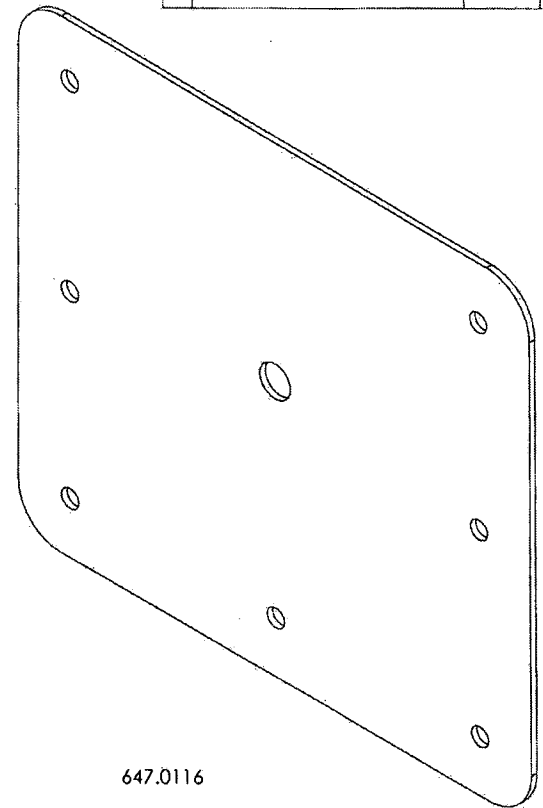
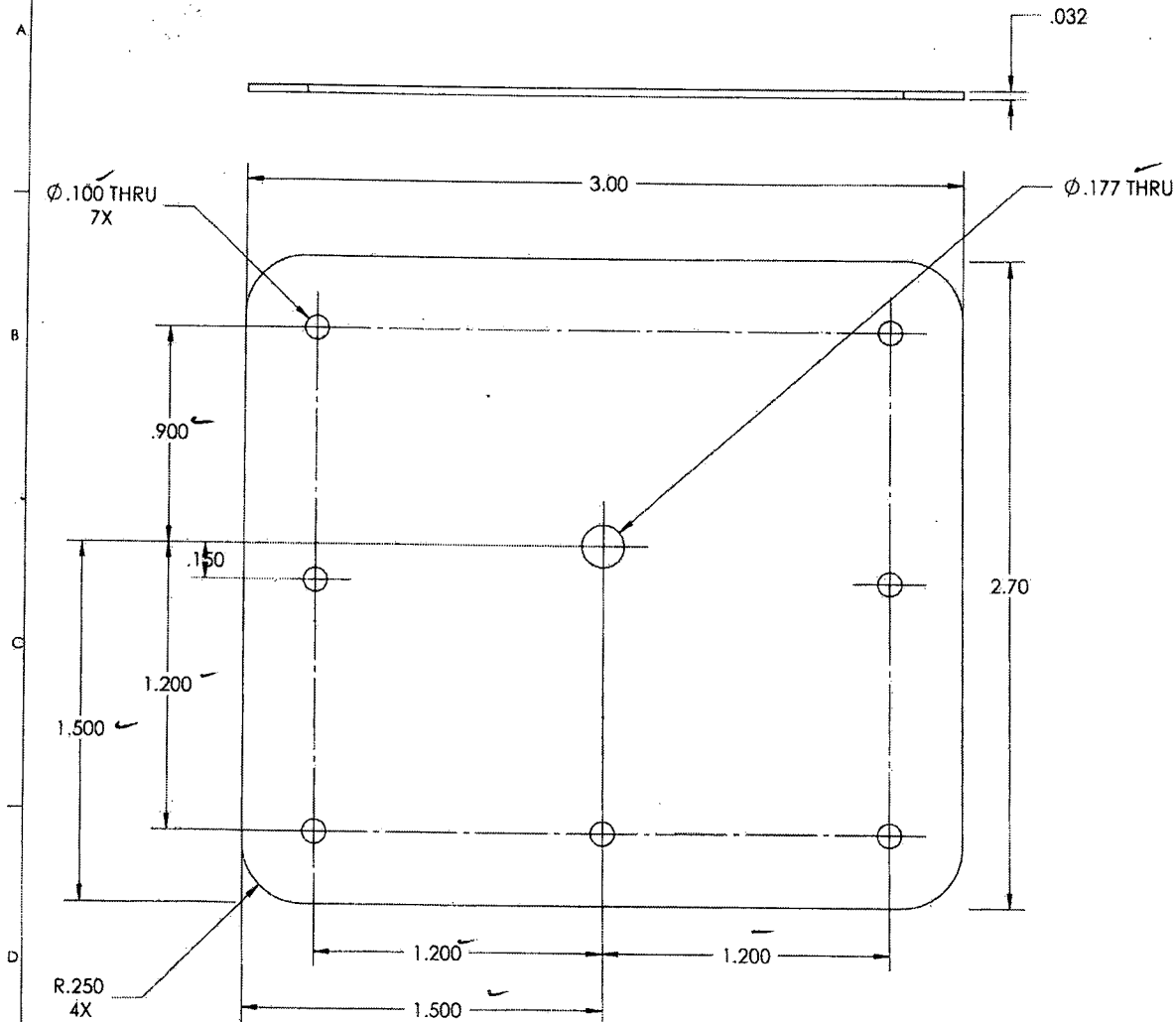
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.0116

ORIGINAL DATE 10-26-89	APICAL INDUSTRIES		
DRAWN BY R. OSAND P. BRAVO	7608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		
DRAWING APPROVAL P. BRAVO 10-26-89	SHEETMETAL		
COMPACT NO.	1. WALLS OTHERWISE SPEC'D DIMENSIONS ARE IN INCHES. 2. WALL THICKNESS .061 3. WALLS 1/8" THICK 4. CORNERS 1/8"		
	SUB CAGE CODE R 07VMZ6	QNTY. NO 6 47.0100	REV A
	SCALE NONE	SHEET 6	OF 6

APICAL INDUSTRIES

2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760) 724-5300

SHEETMETAL

SUE B	CAGE CODE 07M26	DWG. NO. 64.7.0100	REV A
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SCALE NONE	SHEET 6 OF 6
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

SPACE

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO27915**

Purchase Order Date 3/27/2015

PO Print Date 4/1/2015

Page Number 3 of 5

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

VENDOR'S TRUCK

Ship Acct:

Line Total:

\$588.75

123001

647.0116 DOUBLER
REV. A

4/13/2015

17.00

\$7.40

\$125.80

Yes

4/13/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2
PRIME: AS PER IAW MIL-P-23377J TYPE I, CLASS N

SP15-04-14

Line Total:

\$125.80

7 112372

647.1612 SPLICE PLATE
REV. A

4/13/2015

4.00

\$6.90

\$27.60

Yes

4/13/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2
PRIME: AS PER IAW MIL-P-23377J TYPE I, CLASS N

Line Total:

\$27.60

Note:

4/1/2015



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 63643

Date: 10-Apr-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
	PAINT IS SUPPLIED BY CUSTOMER Job: 20150271 PO: PO27915 Line:		
17 ea	Part: 647.0116 DOUBLER HARD ANODIZE BLACK TYPE III CLASS 2 PRIME PER MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLIED BY CUSTOMER Job: 20150272 PO: PO27915 Line:	Rev: A	SPF-04-14
4 ea	Part: 647.1612 SPlice PLATE HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N Job: 20150273 PO: PO27915 Line:	Rev: A	
2 ea	Part: 647.1714 PLATE HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150274 PO: PO27915 Line:	Rev: C	
2 ea	Part: 647.1715 PLATE HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150275 PO: PO27915 Line:	Rev: C	
Certificate of Conformance			



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

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To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

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HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

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Fax: 613-632-1185

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